

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/681,597	10/08/2003	Ehud Levy	40654/293175 7162	
23370 7	08/01/2006		EXAMINER	
JOHN S. PRATT, ESQ			SAMPLE, DAVID R	
	STOCKTON, LLP REE STREET		ART UNIT PAPER NUMBER	
ATLANTA, GA 30309			1755	
			DATE MAILED: 08/01/2006	

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)				
	10/681,597	LEVY, EHUD				
Office Action Summary	Examiner	Art Unit				
	David Sample	1755				
The MAILING DATE of this communication app Period for Reply	pears on the cover sheet with the o	correspondence add	dress			
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING D. Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication. If NO period for reply is specified above, the maximum statutory period or Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be the will apply and will expire SIX (6) MONTHS from the cause the application to become ABANDONE	N. mely filed the mailing date of this co- ED (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed on <u>09 M</u>	<i>lay 2006</i> .					
) This action is FINAL . 2b) ☑ This action is non-final.						
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is						
closed in accordance with the practice under E	Ex parte Quayle, 1935 C.D. 11, 4	53 O.G. 213.				
Disposition of Claims						
4)⊠ Claim(s) <u>1-4 and 6-31</u> is/are pending in the ap	plication.					
4a) Of the above claim(s) <u>7-31</u> is/are withdrawn from consideration.						
5) Claim(s) is/are allowed.						
6) Claim(s) is/are rejected.						
7) Claim(s) <u>1-4 and 6</u> is/are objected to.						
8) Claim(s) are subject to restriction and/o	r election requirement.					
Application Papers						
9) The specification is objected to by the Examine	e r .					
10) The drawing(s) filed on is/are: a) acc		Examiner.				
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Replacement drawing sheet(s) including the correct	· · · · · · · · · · · · · · · · · · ·	-				
11)☐ The oath or declaration is objected to by the Ex	kaminer. Note the attached Office	Action or form PT	O-152.			
Priority under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for foreign	priority under 35 U.S.C. § 119(a)-(d) or (f).				
a) ☐ All b) ☐ Some * c) ☐ None of:						
1. Certified copies of the priority documents have been received.						
2. Certified copies of the priority documents have been received in Application No						
3. Copies of the certified copies of the priority documents have been received in this National Stage						
application from the International Burea						
* See the attached detailed Office action for a list of the certified copies not received.						
Attachment(s)						
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)	4) Interview Summary Paper No(s)/Mail D					
 2) ☐ Notice of Dransperson's Patent Drawing Review (P10-946) 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) 	5) 🔲 Notice of Informal F		-152)			
Paper No(s)/Mail Date <u>20041025</u> .	6)					

U.S. Patent and Trademark Office PTOL-326 (Rev. 7-05)

DETAILED ACTION

Any rejections and/or objections, made in the previous Office Action, and not repeated below, are hereby withdrawn.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Specification

The disclosure is objected to because of the following informalities:

It is the examiner's opinion that the specification has numerous typographical errors where "µm" was inserted rather than "nm". The examiner has come to this conclusion after a careful reading of the specification, claims and prior art. The reasons follow.

The specification is directed to "fumed" transition metal oxides/hydroxides. See page 5, first full paragraph. The term "fumed" as it relates to fumed silica, for example, indicates a material having a particle size in the colloidal range. See the definition in <u>Hawley's Condensed Chemical Dictionary</u>, 2002. "Colloid" chemistry relates to materials having a size in the range between 1 nm and 1 µm. See the definition in Hawley's Condensed Chemical Dictionary, 2002.

The specification also describes the transition metal oxides/hydroxides as "nanoparticulates." See the first paragraph of page 5. A nanoparticle would have a size in the nanometer range, e.g., 100 nm, not a size in the µm range.

On page 11, third paragraph, the titanium oxides are described as atomically distributed or present in the form of particles less than about 0.1 µm. This matches the claim language in describing the transition metal oxides/hydroxides as atomically distributed or in the form of

Art Unit: 1755

particles. The difference between this example and the claims is that the particles are less than 0.1 μ m (i.e., 100 nm) rather than 1-50 μ m. It is the examiner's general experience that the examples are descriptive of the claimed invention. In the present instance, none of the examples show transition metal oxide/hydroxide particles of 1-50 μ m.

For these reasons, the specification is objected to for using the words "fumed" and nanoparticulates in a manner that is abhorrent to their meanings. The words relate to nanometer sized particles but the specification employs the terms to describe micrometer-sized particles. In the alternative, the specification is objected to for using " μ m" in numerous places where "nm" is the correct unit.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-4 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 states that the material comprises "fumed transition metal oxides" The term "fumed" is generally associated with a fine powder of an oxide. In the preferred embodiment of the present invention, a "fumed" titanium dioxide would be a fine powder of titanium dioxide.

In contrast, claim 1 also states that the transition metal oxide/hydroxide is "atomically distributed"

Application/Control Number: 10/681,597

Art Unit: 1755

on or in the aluminosilicate." It is not seen how the transition metal can be present in the form of

Page 4

a fumed particle and simultaneously be atomically distributed in or on the aluminosilicate. It

seems that the fumed particle must be dismantled during processing so that the transition metal

can be distributed "atomically." Thus, the scope of the claim coverage cannot be determined

because the phrases "fumed transition metal oxides..." and "atomically distributed" appear to be

incompatible.

Claim 6 does not appear to further limit claim 1.

Claims 2-4 are rejected for failing to correct the deficiencies of claim 1.

Response to Arguments

Restriction

Rejoinder of non-elected claims will be considered when the product is found allowable

so long as the non-elected claims include all the recitations of the allowed product.

Inormation Disclosure Statement

Attached is an initialed, signed and dated copy of the IDS.

Prior Art Rejections

The prior art rejections have been overcome in view of the amendment.

Application/Control Number: 10/681,597 Page 5

Art Unit: 1755

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Sample whose telephone number is (571)272-1376. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (572)272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

> vid Sample Primary Examiner Art Unit 1755